



1:1
PHASE

3:1
PHASE



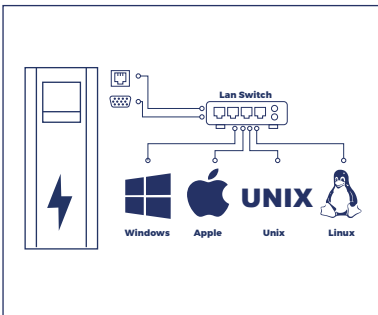
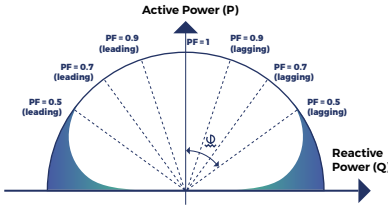
MONOLINE R SERIES

1 - 3 Phase Input
1 - Phase Output RACK UPS
6 - 20 kVA



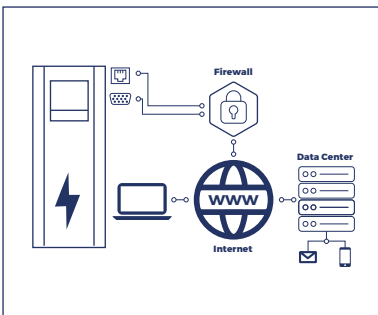
SINGLE PHASE OUTPUT UPS FOR INDUSTRIAL APPLICATIONS

Three level Technology, Compact and Robust, Monoline is the perfect UPS to protect and supply loads in the industrial fields and critical applications.



- ◆ Three Level Technology
- ◆ On Line-Double Conversion Technology (Class VFI-SS-111)
- ◆ IGBT PWM Rectifier & Inverter Technology
- ◆ High Efficiency up to 96%
- ◆ Higher efficiency with eco mode up to 98%
- ◆ High Input Power Factor (≥ 0.99)
- ◆ Low Input THD ($\leq 5\%$)*
- ◆ Increase battery life time up to 35% with smart charger
- ◆ Temperature compensation battery charging
- ◆ Higher fan life time with Intelligent fan speed control
- ◆ Operate as frequency converter (50 Hz / 60 Hz)
- ◆ Short Circuit, Overload, Lightning and Surge Protection
- ◆ Perfect Generator Compability
- ◆ Easy Service with Manual bypass
- ◆ Variable input low voltage depending on loading percentage (up to -40%)
- ◆ Parallelable with Common or Seperate Battery Cabinet
- ◆ Realtime warnings at LCD screen

SOFTWARE & CONNECTIVITY SOLUTIONS



- ◆ Local communication with RS232 and RS485
- ◆ 2pcs configurable input contact
- ◆ Relay board with alarms
- ◆ GenSet contact
- ◆ EPO contact
- ◆ USB
- ◆ Remote Monitoring Panel
- ◆ Battery Temperature Sensor for Charging
- ◆ JBUS, PROFIBUS Local connection
- ◆ SNMP IT Manager monitoring
- ◆ Environment sensors for Data Centers (Humidity, Temperature, Smoke, etc.)
- ◆ GSM, Telnet, GPRS communication
- ◆ PC & Server shutdown
- ◆ Web page remote monitoring
- ◆ Building management system
- ◆ E-mail alarm reporting
- ◆ Remote monitoring 24/7 Technical Service

MONOLINE R SERIES

| MODEL | MNL 1106U1R MNL 1106U2R | MNL 1110U1R MNL 1110U2R MNL 1110U3R | MNL 1115U1R MNL 1115U2R MNL 1115U3R | MNL 1120U3R | MNL 3110U1R MNL 3110U2R | MNL 3115U2R MNL 3115U3R |
|--|--|---|---|----------------------------|----------------------------|----------------------------|
| Nominal power (kVA) | 6 | 10 | 15 | 20 | 10 | 15 |
| General Specs | | | | | | |
| Technology | Three Level On-Line double conversation VFI-111 | | | | | |
| Waveform | Sinusoidal | | | | | |
| Architecture | Stand Alone or Optional Parallel | | | | | |
| Input characteristics | | | | | | |
| Input voltage | 220, 230, 240 Vac 1PH+N+PE | | | 380, 400, 415 Vac 3PH+N+PE | | |
| Input frequency | 45-65 Hz | | | | | |
| Voltage Tolerance (%100 load) | (-20%) (+20)% | | | | | |
| Voltage Tolerance (%50 load) | (-40%) (+20)% | | | | | |
| Input Power Factor | ≥0,99 | | | | | |
| Input Current Harmonic* | ≤5% | | | | | |
| Output characteristics | | | | | | |
| Output Voltage | 220,230,240 V 1 Ph+ N+PE (Adjustable from front panel) | | | | | |
| Output Voltage Tolerance | ±1% | | | | | |
| Overall Efficiency (AC-AC) | Up to 95% (%50 load) // Up to %94 (%100 load) | | | | | |
| Ecomode Efficiency | Up to 98% (Optional) | | | | | |
| Nominal Output Frequency | 50/60Hz +0,01 free run (Adjustable from LCD Panel) | | | | | |
| Crest Factor | 3:1 | | | | | |
| Output Power Factor | 1 (U1 model) / 0,9 (U2 model) / 0,8 (U3 model) | | | | | |
| THD of Output Voltage | ≤2% (Linear load) & ≤5% (Non-linear load) | | | | | |
| Bypass characteristics | | | | | | |
| Overload Capability | 150% for 1 minutes | | | | | |
| Bypass | Built in Automatic and Maintenance Bypass | | | | | |
| Voltage Tolerance | ±10% | | | | | |
| Batteries | | | | | | |
| Battery Type | VRLA-AGM / (GEL - NiCd - Li-On Opsiyonel) | | | | | |
| Battery Test | Automatic or Manual | | | | | |
| Battery Recharge Time | <6h-8h | | | | | |
| Charger Capacity | | | | | | |
| U1/U2/U3 Model (max) | 1A | 4A | | 1A | 4A | |
| with Charger Option | 4A / 13A | | | | | |
| Battery Quantity | | | | | | |
| External Cabinet with Standard Charger | 16 // 20(U1) pcs | 20 pcs | 30 // 40 pcs | | 20 pcs | 30//40 pcs |
| External Cabinet with 4A Charger Option | 30-40 pcs (Default 40 pcs) | | | | | |
| External Cabinet with 13A Charger Option | 30-40 pcs (Default 40 pcs - Adjustable from LCD Panel) | | | | | |
| Communication and Accessories | | | | | | |
| LCD Display | Graphical Lcd Screen, Led Bar Status | | | | | |
| Communication ports (Optional) | RS485, Genset, SNMP, GSM Modem, Relay Contacts, Input Contacts, Modbus and USB | | | | | |
| Accessories (Optional) | Galvanic Isolation Transformer, Remote Monitoring Panel, Parallelization | | | | | |
| Physical Characteristics | | | | | | |
| Dimensions H x W x D (mm) | 3U x 19" x 599 | | | | | |
| Net Weight (kg) | 25 | 30 | 35 | 40 | 32 | 36 |
| Ambient Conditions | | | | | | |
| Operating temperature (°C) | 0°C - 40°C | | | | | |
| Storage Temperature | -15°C+ 55°C | | | | | |
| Relative Humidity (%) | < 95% not condensing | | | | | |
| Altitude | < 1500m | | | | | |
| Noise (at 1 meter) | <55 dBA | | | | | |
| Protection Class | IP 20 (Higher Ip Ratings are optional) | | | | | |
| Compliance | | | | | | |
| Referance Product Standards | EN 62040-1-1 (Safety), EN 62040-2 (EMC), EN 62040-3 (Performance) | | | | | |

*For single phase input model

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The company reserves the right to change specifications and designs without notice.